



## 1.51 Practice: Assignment Name: Isaiah Singh Date: 4/22/2020

ALS Liberal Arts Math 1 Sem 2

Points Possible: 28

**Answer the following questions using what you've learned from this unit. Write your responses in the space provided.**

Scoring: Each question is worth 2 points.

For questions 1 – 3, answer the questions about polynomials.

**1.** What is the degree of the polynomial below?

$$x^3 + 2x - 3x^4 + 5 + 3x^2$$

**Answer: 4**

**2.** What is the degree of the polynomial below?

$$3 - 14x^4 - 2x^8 + 20x + 4x^2$$

**Answer: 8**

**3.** What is the coefficient of the term of degree 6 in the polynomial below?

$$3x^2 - 14x^6 + 6x^3 + 12x + 5x^5$$

**Answer: -14**

For questions 4 – 9, find the sum or difference of the polynomials. Write your answer in descending order.

$$(9x^2 + 3x - 2) + (3x^2 - 5x - 3)$$

**4. Answer:  $12x^2 - 2x - 5$**

$$(3x^2 - 2x + 6) - (5x^2 + 2x + 9)$$

**5. Answer:  $-2x^2 - 4x - 3$**

$$(8x^3 - 3x^2 + 2x + 1) + (-8x^2 + 3x + 2)$$

**6. Answer:  $8x^3 - 11x^2 + 5x + 3$**

$$(7x^3 + 2x^2 + 5x - 12) - (9x^3 - 4x^2 + 2x + 6)$$

**7. Answer:  $-2x^3 + 6x^2 + 3x - 18$**

$$(12x^4 + 3x^3 + 7x + 4) + (12x^4 + 7x^2 - 7x + 2)$$

**8. Answer:  $24x^4 + 3x^3 + 7x^2 + 6$**

$$(2x^3 - 2x^2 - 3x - 3) - (9x^3 - 3)$$

**9. Answer:  $-7x^3 - 2x^2 - 3x$**

For questions 10 – 11, use the table to answer the questions. It is set up to multiply two polynomials.

	$x^3$	$-2x^2$	$5$
$3x$			
$8$			

What is the coefficient of the  $x^3$ -term of the product?

What is the coefficient of the  $x^2$ -term of the product?

**10. Answer: 1**

**11. Answer: -2**

For questions 12 – 14, find the product of the two polynomials. Write your answer in descending order.

$$(2x + 7)(2x - 7)$$

$$(8x^2 - 2x + 2)(3x + 5)$$

**12. Answer:  $4x^2 - 49$**

**13. Answer:  $24x^3 + 34x^2 - 4x + 10$**

**14.**  $(2x - 3)(x^2 + 4x + 1)$

**Answer:  $2x^3 + 5x^2 - 10x - 3$**